

Gender and Vulnerability: Probation Officers' Assessments of Offenders in a U.S. Juvenile Court

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This paper presents a study of the underlying structure of officials' assessments of juvenile offenders. The purpose of this study is to determine whether particular characteristics of juveniles' cases and backgrounds cluster together into meaningful interpretable "diagnoses" of their problems and behavior. In other words, do the assessments of juveniles fall into particular dimensions? And second, are these dimensions invariant across the cases of young male and female offenders? Although there has been an emerging emphasis on the social psychological processes—as well as some interesting empirical studies—there remains a lack of a strong theoretical foundation for explaining the nature of the court officials' typifications (or working theories) of criminal defendants. Thus, further research is needed to develop a theoretical framework for explaining the underlying conceptual dimensions that reflect how court officials account for the problems and behaviors of defendants.

To examine some preliminary theoretical models about the typifications and characterizations used by juvenile probation officers, this paper relies on confirmatory factor analysis. This technique maximizes the correspondence between the observed variance/covariance matrix and the hypothesized model. Although generally used as a data reduction technique, the use of factor analysis in this chapter also represents an attempt to identify and evaluate ‘constellations of . . . characteristics that represent structural dimensions’ of evaluations of youths’ problems and behaviors (Stapleton, Aday and Ito 1982, p.553).

Nature of Categorization in the Processing of Offenders

The work of court officials involves classifying offenders and their behaviors into accepted ‘categories of events’ that can then be ‘routinely processed’ (Stanko 1982, p.65). The key question explored here is the nature of these categories and accounts. What, then, are the elements that define the typifications used by court officials? The nature of these typifications will fundamentally differ depending on the officials’ role and the type of decisions that they routinely make. For instance, police officers routinely must decide what is suspicious, and in turn what requires intervention. This order-maintenance role orients officers to the assessment of potential threat; that is, officers look to certain characteristics of the immediate situation to assess whether someone is a ‘symbolic assailant’ (Skolnick 1975, p.45). Prosecutors evaluate cases based on convictability, the probability of successful

prosecution (Miller 1970; Myers and Hagan 1979; Stanko 1982; Frohmann 1991). Thus, their focus is on legal characteristics of cases, especially the evaluation of evidence and the credibility of witnesses.¹ In other words, prosecutors assess whether a particular case is a “solid case” (Stanko 1982) or a “strong case” (Myers and Hagan 1979), in order to decide how to proceed, (e.g., whether to file charges or how to handle plea-bargaining negotiations). Public defenders, although also oriented towards legal issues, evaluate cases based on how typical they are for a certain class of offenses and offenders, in order to determine the most likely actions of prosecutors and judges (Sudnow 1965). In contrast, juvenile probation officers make assessments about juveniles’ moral character, developing rules about the causes of delinquency and its occurrence (Emerson 1969; see also Bridges and Steen 1998; Cicourel 1968).²

Probation Officers’ Assessments of Causes of Juvenile Offenders’ Behavior

In making recommendations and decisions, juvenile probation officers focus on the needs and rehabilitation of youth offenders. For instance, in the study jurisdiction, the required training curriculum includes materials about how to motivate changes in the offender’s behavior. In addition, juvenile probation officers are, in part, responsible for providing to the juvenile court with assessments of the social circumstances in which youths’ offending occurs. As one officer described the probation officer’s role: “You can be generic, just being anyone in; look at the court order; match risk areas to programs. But that’s not what it’s about. Can you find the issues? Can you do enough to keep them out of the system?”

¹ Although their concern is centered around legal criteria, the evaluation of evidence involves subjective assessments of credibility and quality.

² Research also suggests that the focal concerns of probation officers within the adult criminal courts are also oriented towards the characteristics and backgrounds of defendants, especially their past history (Spencer 1984).

Thus, despite recent ideological shifts,³ assessments about character and motivation for their behavior remain integral to the work of juvenile probation officers.

Probation officers account for delinquent behavior by identifying “trouble”, that is, indicators of the existence of a problem (Emerson 1969). “Trouble” is determined, not so much by the behavior itself, but by explaining the causes for what is occurring. Thus, juvenile officers are concerned with establishing “what is the problem?”, rather than “what happened?” (Emerson 1969, p.87). For example, two youths are charged with shoplifting. One youth has a history of running away and living on the streets; the other is doing well in school and has a stable home environment. Their problems—the motivation for their behavior—will be perceived quite differently. This search for meaning about the behavior and its likely reoccurrence involves an evaluation of the youth, his or her overall behavior, attitudes, family and social environment. It is an assessment of moral character, evaluating motives and their excusability (Emerson 1969).

Recent research suggests a useful way of thinking about how probation officers assess and describe youth and the causes of their behavior. Drawing on theories of social cognition, Bridges and Steen (1998) and Carroll and Payne (1977) argue that offenders who have their behavior attributed to internal causes, rather than external causes, may be seen as more culpable. Internal attributions explain behavior in terms of personal characteristics, abilities, motivations and values; external attributions focus on situational or environmental explanations. Thus, the classification of juvenile offenders—especially when decisions about

³ Recent years has seen an increasing national movement towards actuarial justice in the juvenile justice system.

risk of re-offending and punishment are being made (Carroll and Payne 1977)—may be based on perceptions and judgments about the causes of their delinquent behavior. This has implications for evaluations of youths' reformability: for instance, if a youth's motivations are perceived as resulting from internal causes, then that youth may be seen as having less treatable problems, and thus as being less reformable. Probation officers, thus, typify youth as having "internal motivations" (i.e., attitudes and personality) or "external motivations" (i.e., environmental or situational).⁴

Yet, some qualitative research suggests that this general internal/external dichotomy may obscure gender differences in officials' perceptions of the causes of male and female offending. For instance, in a content analysis of the rationales of presentencing recommendations provided by probation officers for a sample of matched adult female and male cases, Frazier, Bock and Henretta (1983) found that there were gender differences in the explanations of offending behavior relied on by officers in their reports. In particular, female crime was perceived as emerging from emotional, mental health and family problems, while male crime was related, in part, to lack of stability and irresponsible behavior (pp.314-315). Using questionnaires mailed to a sample of court officials, Kempf-Leonard and Sample (2000) reported some differences in the perceptions of officials about gender-specific factors used in the processing of juveniles. Although most factors were given equal weight, they discovered that defiance and perceptions of honesty occurred more frequently as a response

⁴ Emerson (1969, p.91) distinguished three categories of motivations: normal, hard-core and disturbed. Within an attributional framework, "hard-core" and "disturbed" can be seen as internal explanations. The "hard-core" youth is "maliciously or hostilely motivated"; the "disturbed" youth has "obscure motives or inner compulsions" (p.91). In contrast, "normal" youth are acting for 'conventional' and even excusable reasons (p.91), which suggests external explanations for their behaviour. The difficulty with Emerson's classification is that it identifies extreme or more rare behaviours, while grouping the bulk of juvenile cases into a single category.

for the cases of young males, whereas emotional maturity, risk of sexual activity (and of pregnancy), and evaluations of manipulation were more likely cited as factors important in the processing of female offenders (pp.109-110). Others have pointed to the ways court officials, in constructing justifications for punishment, locate criminal behavior in the blurred boundaries between victimization and offending (Daly 1994). Additionally, there is some evidence to suggest that juvenile probation officers make gendered assessments about the functioning of the family environment, especially the role of mothers. Wordes and Bynum (1995) found that probation officers believed that mothers alone were inadequate to provide the supervision and control required for young males.

What emerges from this research is a sense that the internal/external distinction may miss gender differences in perceptions (e.g., female crime was attributed to emotional issues (internal) and family problems (external factors)). Thus, this distinction may not correctly reflect the “focal concerns” (to borrow a phrase from Steffensmeier, Ulmer and Kramer 1998) of juvenile probation officers. Research in naturalistic settings also exhibits greater difficulties in assigning causal explanations into mutually exclusive external and internal dimensions (see e.g., Mehan, Hertweck and Meihls 1986, where their coding scheme included a mixed internal/external category to capture the more complex causal statements made by teachers to explain student performance). Exposure to victimization is an example of the blurring of the boundary between internal and external. Although victimization experiences are in some sense an environmental factor (as being victim happened *to* you), particular victimization experiences (such as, abuse and neglect) may be implicitly related by probation officers to internal factors, such as low self-esteem, and emotional and

psychological problems. In the study jurisdiction, for instance, concerns about abuse and neglect are specifically listed under “mental health issues” in the risk assessment instrument.

Further insight can be gained from research on causal attribution and achievement behavior. Some scholars argue that the controllability of a perceived cause might be particularly important in making decisions about how to respond and evaluate the behavior of others (Fiske and Taylor 1984).⁵ Controllability refers to whether the person is perceived as having some control over the outcome (i.e., the attributed cause for the behavior is seen as something the person could have controlled). The concept of controllability may be particularly salient in the context of legal decision-making. In many ways, the notion of controllability parallels the legal category of culpability or responsibility. Legal defenses for criminal offenses focus on minimizing defendants’ responsibility for their actions by focusing on factors that indicate that defendants had no or little control at the time. For instance, the defense of provocation essentially argues that a defendant was placed in circumstances where his or her lack of control is understandable; the defense of being under the influence of alcohol or drugs also is aimed at providing a factor that undermines defendants’ control of their actions, and their ability to foresee the consequences of their behavior.

Drawing on this discussion, we can identify two models of the conceptual dimensions that reflect the explanations used by probation officers to account for the criminal behavior of youth. The first model can be described in terms of two underlying broad or general

⁵ This attributional dimension has not been as strongly supported as the internal/external dimension. However, this could be a result of the types of behaviors being studied, and the direction of the attribution (i.e., self vs. other).

factors—external versus internal explanations of behavior. The second proposes a model of four specific dimensions: internal-controllable, external-controllable, external-uncontrollable, and blurred-uncontrollable.⁶ These types of explanations of youth and their problems are summarized in Figure 1.

	<u>Controllable</u>	<u>Uncontrollable</u>
<u>Internal</u>	Attitudes Values	Mental health Victimization
<u>External</u>	School Peers	Family environment Parental control

Figure 1: Focal Concerns of Probation Officers in Assessing Juvenile Offenders

General Factors: Internal vs. External Dimensions

Although not extensive, research on official decision-making often considers external factors, such as drug or alcohol use, the nature of a defendant's associations, and family structure. Youth with behavior explained in terms of situational factors may be seen by officials as treatable or reformable with appropriate interventions (Bridges and Steen 1998; Drass and Spencer 1987; Carroll and Payne 1977). Internal factors, such as lack of remorse, disrespect for authority and rules, and other assessments of demeanor, have played a much smaller role in explanations of decision-making (Bridges and Steen 1998). However, these types of characterizations have been theoretically linked to officials' perceptions of greater risk and threat (Bridges and Steen 1998; Albonetti 1991; Drass and Spencer 1987; Cicourel 1968).

⁶ An internal/external/blurred model was also estimated. However, it did not fit the data as well as the four-factor model. Thus, the results for the original general internal/external model and the specific four-factor model are presented here.

Specific Factors: Internal, External and Controllable Dimensions

In the second model, four dimensions of explanations were identified: internal-controllable; external-controllable, external-uncontrollable; and blurred-uncontrollable. Explanations based on *internal-controllable* factors locate the cause of youths' criminal offending in their attitudinal problems, such as negative attitudes, anti-social values and anger or aggression problems. The very existence of programs, such as anger management therapy, is indicative of a perception within the juvenile justice system that these are potentially changeable, and thus, controllable. These types of explanations relate to a youth's *negative attitudes*. At the other end, there are explanations that identify *external-uncontrollable* factors as the motivation for the youths' offending. The explanations focus on situational factors that youths have no control over: particularly salient examples for youth behavior are their family environment and the ability of parents to control the youth. We can describe this factor as relating to *familial control*. Another set of factors that are pertinent in explanations of youth offending focuses on what we might call poor lifestyle choices: youths' choices and decisions about peers, investment in school, and other activities. These environmental factors can be seen as controllable by youth: youth can choose who to "hang out with" and are responsible for their behavior and study habits. In other words, *poor conventional associations* could be relied on by probation officers as a key problem for youth and their behavior. Finally, the blurred uncontrollable dimension reflects explanations of *vulnerability*. These are explanations that blur the boundary between offender and victim, and thus, attribute less responsibility for behavior that is a product of these serious past problems (Daly

1994). Experiences, such as prior victimization, abuse, mental illness and drugs, expose youth to situations in which criminal offending was more likely.

Given the limited empirical research available, this chapter is largely exploratory in nature, and thus, does not propose specific hypotheses. Instead, it focuses on three key research questions:

- (1) Does the empirical evidence support the two-factor model or the four-factor model of assessments?
- (2) Does the same structure underlie the assessments of both young male and female offenders?
- (3) To the extent that probation officers perceive female offenders differently, do the assessments that “flag” the classification of an offender vary by gender?

A final point deserves reiteration. This analysis is *not* concerned with whether these typifications are accurate representations of some objective reality. For instance, social and economic circumstances may mean that certain groups of youth, such as minority females, are more likely to experience abuse or lack stable home environments. Thus, probation officers’ assessments of minority females and their vulnerability may be warranted and reflect the environments and risks that these youth are facing. The typifications employed by court officials do not necessarily have to be biased or inappropriate. Typifications develop out of the circumstances of offenders and cases that officials regularly and routinely interact with: they are a complex mix of facts and perceptions.

Data and Methods

The analysis relies on the pre-screen risk assessment data for a sample of juveniles processed through a county juvenile court in western United States. Probation officers in the study county complete a risk assessment on most juveniles prior to sentencing (or disposition). A basic (or pre-screen) risk assessment instrument is used for juveniles thought to be at “low risk” of re-offending, while a more extensive evaluation is conducted for those offenders thought to be “moderate or high risk”. This study focuses on the pre-screen data, because full assessment data is only available for moderate to high risk offenders. The risk assessment evaluation provides a rich source of systematic information on school performance, school misbehavior, family arrangements, use of free time, employment history, negative peer associations, drug and alcohol use, mental health, previous criminal involvement, and subjective assessments of the youth’s attitudes and behaviors.

As these data consists of a series of questions or items to which probation officers respond by checking the appropriate pre-determined category, a critical issue is whether the data represent assessments made by officials about juveniles. There are three reasons why these data is suitable to address the questions of interest. First, although structured, the assessment instrument mixes elements of subjectivity, values, interpretation and objective information. Recall that typifications are clusters of evaluations and characteristics, some of which might be seen as “objective”. A variety of items on the instrument require probation officers to make assessments about youths’ values and attitudes, the impact of their alcohol or drug use, and the home environment. For instance, officers are asked to determine the level of parental control over the youth. This may include using other information about the youth’s activities to make inferences about the level of parental control: “If the youth

commits a crime in the middle of the night, the parent may not have the control to keep the youth in the house” (Washington Association of Juvenile Court Administrators 1999, p.32). In addition, the questions frequently require officers to evaluate information provided by youth, their families and others. For example, probation officers are asked to determine whether there is any history of *suspected* physical or sexual abuse or neglect, whether or not substantiated. The manual directs officers to exercise their discretion in assessing others’ suspicions of abuse (Washington Association of Juvenile Court Administrators 1999, p.52).

Second, probation officers collect information from a variety of sources that is then transformed into their responses to the instrument items. Interviews with probation officers clearly indicated that they do not directly ask juveniles, their families, and others (such as schools) the items on the instrument. Instead, they conduct an information-gathering process through interviews, records and reports. Once completed, they then fill out the required documentation, including the risk assessment instrument.

Finally, the risk assessment instrument imposes a structure on the process of assessing juveniles, but it has not changed the ways in which probation officers think about, and evaluate, juvenile offenders. The focus of the probation officer’s pre-sentencing role remains on evaluating youths’ background to identify the factors that influence their offending. Since the introduction of the assessment instrument, officers continue collect similar information in a similar manner. Prior to the more formalized assessment instrument, there were specific procedures and training in place for the preparation of pre-sentencing reports. As one probation officer commented: “[I] don’t think we’re doing anything differently than before. . .

It's a documentation trail. . . ask any of them [other probation officers], we're not doing anything different than five or ten years ago." The advantage of this "documentation" is that it ensures that information on particular characteristics and evaluations is available systematically across all cases.

Sample

The initial sample for this study consisted of 1,026 cases that were charged with felony and misdemeanour offences during 1999 to 2001. Of these 1,026, the sample was restricted for three reasons. First, the analysis is confined to those cases which facing sentencing or disposition hearings. About 14.6% of cases did not result in a conviction,⁷ so were excluded from the sample for analysis. Second, a further sample restriction was imposed to address a limitation of the risk assessment data, caused by changes in the processing policies of the study juvenile court. In 2000, cases that involved *committable* offenses were no longer subject to the same assessment processes as other cases. Committable offenses are those that have a sentencing range of greater than 30 days detention under the guidelines. Typically, these are cases involving serious violence, or youth who have extensive involvement with the court. Cases from 1999 were in the initial sample as this policy change was not known until after data collection had commenced. All cases (approximately one-fifth of the initial sample) involving committable offenses were excluded from the analysis. Finally, for a small proportion (6.1%) of cases, risk assessment information could not be located, and consequently, these cases could not be included.

⁷ Technically, those cases in which a guilty plea is entered, or deferred disposition is being requested, have not yet been adjudicated. For those cases, adjudication and sentencing is combined into a single proceeding.

The final sample consisted of 594 cases, with 304 involving male offenders and 290 involving female offenders.

Key Measures

The determination of appropriate measures for each factor relied heavily on seminal ethnographic work on juvenile courts (e.g., Cicourel 1968; Emerson 1969), as well as recent work on juvenile courts and attributions (e.g. Bridges and Steen 1998). The findings of these studies suggest that probation officers look at youths' attitudes towards conventional behaviors and values, their remorsefulness, their peer group, their performance at school, and their family environment. Based on the theoretical importance placed on "paternalism" in theories of girls and courts, measures highlighting familial control, the failure of families (e.g., abuse and neglect), mental health, and the parental role of the mother were also included.

Two-Dimension or Factor Model

Negative Internal. Five items represent internal explanations for the offending behavior of youth (see Figure 2a). Increasing values on this dimension indicate more *negative* internal assessments. These items generally reflect assessments of a youth's attitudes towards his or her behavior, respect for social values, and orientation towards the use of aggression or

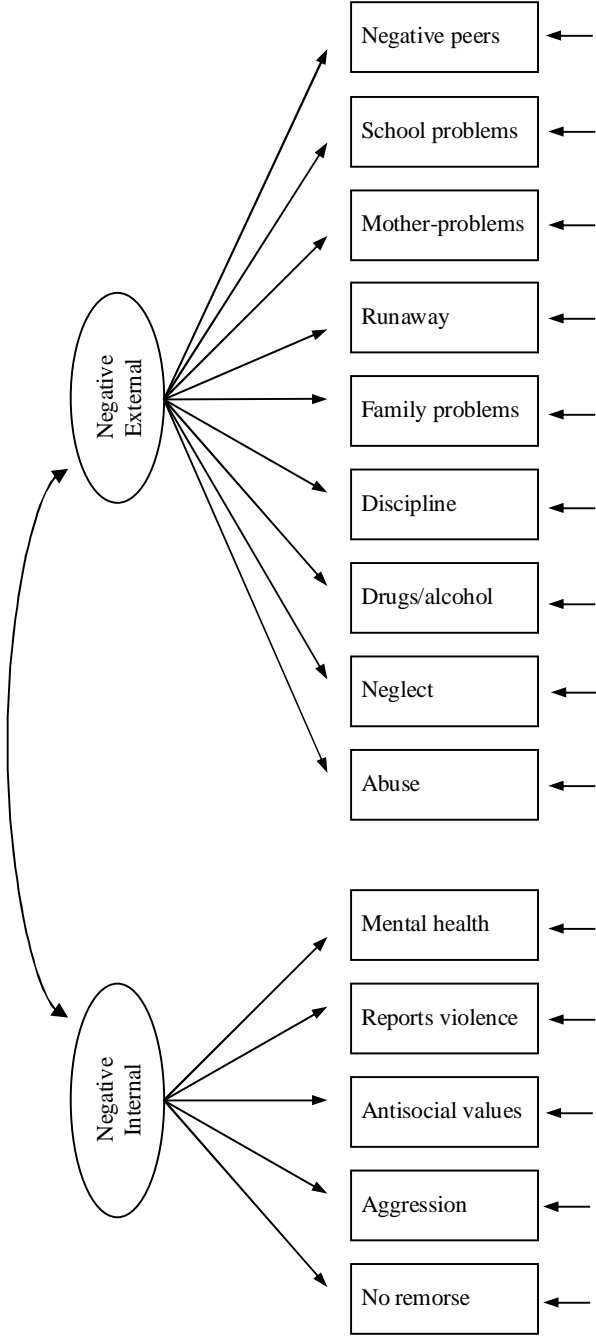


Figure 2a: Two-Factor Model of Probation Officers' Working Theories

violence. The variables included are whether the youth failed to show remorse for his or her behavior (“youth blames, denies or accepts antisocial behavior”); whether the youth lacks respect for authority and social values (“youth exhibits antisocial values”); whether the youth believes that it is appropriate to use physical aggression to resolve a disagreement or conflict; whether there were any reports or evidence of violent or anger; and whether the youth has a diagnosed mental health problem. “Reports of violent behavior” and the existence of “mental health problems” are dichotomous measures (i.e., presence or absence). The other three items (“no remorse”, “appropriateness of physical aggression” and “antisocial values”) were collapsed into dichotomous categories due to small numbers in some categories.

Two other items were also considered (“any reports of sexual aggression” and “whether the youth believed that *verbal* aggression is sometimes or often appropriate to resolve a disagreement”). There were insufficient cases with reports of sexual aggression (3.9%) to be of practical use. Since youth assessed as holding beliefs about verbal aggression frequently assessed as holding similar beliefs about the use of physical aggression, this item was also not included.

Negative External. External explanations of youth’s offending were represented by nine items (see Figure 2a). These items focus on situational factors such as the youth’s family environment, school and peers. Once again, higher values on this dimension indicate more *negative* assessments. Whether the youth was ever a victim of abuse, whether the youth was ever a victim of neglect, whether drugs and/or alcohol was seen as contributing to a youth’s offending behavior, whether the youth had ever runaway or been kicked out of home, and

whether the youth is seen as having negative peers were all measured as dichotomous variables (i.e., presence/absence). The inclusion of running away, and drugs and alcohol may seem misplaced. However, informal discussions with probation officers suggests that running away/being kicked out of home were generally seen as a response to an inadequate home environment; while drug and alcohol use appeared to be linked with other failures in the youth's environment. "Family problems"—an additive index of the number of problems experienced by family members living in the household with the youth—represents a measure of stability within a youth's home environment. In addition to the "family problems" index, given the focus on gender, a *separate* dichotomous measure of whether the youth's mother (if living in the household) suffered from any alcohol, drug, mental health, physical health, employment or financial problems was created from this index. A further measure of the youth's family environment was the nature of parental control and rule enforcement. As all youth at times disobey parents, this dichotomous item coded as indicating the presence of assessments of consistent disobedience or hostility towards parents. Finally, to reflect assessments of the youth's behavior at school, a dichotomous measure of whether the youth was seen as experiencing major problems at school (operationalized as truancy, calls to the police, failing most classes, dropped out, expelled or suspended) was calculated.

Two other items were excluded on empirical grounds. The inclusion of "whether the youth had any out-of-home placements" caused estimation problems (due to linearity in the data). Youth determined as being "a gang member or associate" were subsumed within "negative peer associations" indicator.

Four-Dimension or Factor Model

The four-factor model (see Figure 2b) separated these 14 items into negative attitudes (internal/controllable), vulnerability (internal/external/uncontrollable), familial control (external/uncontrollable) and poor conventional associations (external/controllable).

Negative Attitudes. The dimension of *negative attitudes* was represented by four items measuring attitudes and orientations towards anti-social behavior and aggression: “no remorse”, “belief in use of physical aggression”, “antisocial values”, and “reports of violence/aggression.” Higher scores on this dimension indicate more negative attitudinal assessments.

Vulnerability. This underlying dimension of explanations for youths’ behavior emphasized experiences of exploitation and victimization (“victim of abuse”, “victim of neglect”, “drugs/alcohol”, and “mental health”). Similarly, increasing values on this dimension reflect assessments of increasing vulnerability.

Familial Control. The familial control dimension was hypothesized to be related to items measuring family stability and dynamics (“disciplinary problems”, family problems index, “mother has problems”, and “run away/kicked out”). High scores on this dimension mean evaluations of low familial control.

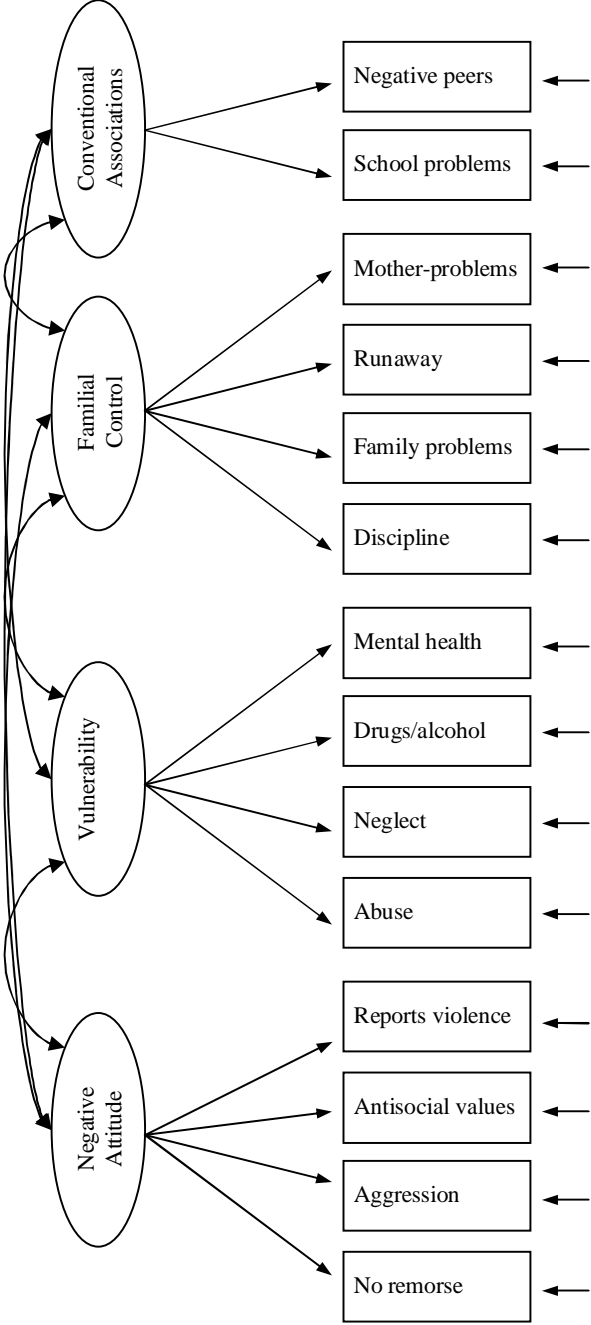


Figure 2b: Four-Factor Model of Probation Officers' Working Theories

Conventional Associations. Explanations focusing on school-related issues (“major school problems”) and peers (“negative peers”) are reflected in the *low or poor conventional associations* dimension. Assessments of poor conventional associations correspond to increasing values on this factor.

Descriptions of and summary statistics for the variables used in the analysis are provided in Table 1. A final comment about the measurement and coding of these variables must be made. Missing values on these items were coded as “0” (i.e., not present or information unavailable). Missing values were treated as having a substantive meaning, and not simply as presenting a technical issue. Court officials make determinations based on the information available on file. Whether the information is marked as “no” or is left blank, officials are unable to take it into account in their decisions. Consequently, we can think of missing values as representing a lack of anything of interest about the juvenile.⁸

⁸ Similar reasoning was used in Bridges and Steen (1998).

Table 1: Descriptive Statistics for Items used in Analysis
(Risk assessment data 1999-2001, N=594)

<i>Variable</i>	<i>Description</i>	<i>Total</i> ^a	<i>Young Males</i> ^a	<i>Young Females</i> ^a	
Victim of abuse	Youth has ever been victim of actual or suspected physical or sexual abuse (1=yes; 0=no).	0.30	0.19	0.42	***
Victim of neglect	Youth has ever been victim of actual or suspected neglect (1=yes; 0=no).	0.14	0.10	0.18	**
Drugs/alcohol	Youth's drug/alcohol use causes disrupted functioning or contributes to crime (1=yes; 0=no).	0.40	0.40	0.39	
Mental health problems	Youth has a diagnosed mental health problem (1=yes; no=0).	0.14	0.11	0.17	*
Runaway	Youth has runaway from home or been kicked out of home for > 24 hours (1=yes; 0=no).	0.50	0.43	0.57	***
Family problems	Additive index of number of problems (i.e., alcohol, drugs, mental health, physical health, employment, financial or imprisonment) experienced by family members currently living in the household (ranges from 0 to 6).	2.00 ^b	2.00 ^b	3.00 ^b	**
Mother-problems	Mother (or female guardian) in the household suffers from any alcohol, drug, mental health, physical health, employment, or financial problems (1=yes; 0=no).	0.37	0.35	0.38	
Discipline problems	Current parental rule enforcement and control (1=youth consistently disobeys, and/or is hostile; 0=obeys or sometimes obeys).	0.64	0.64	0.64	
Negative peers	Youth has negative or antisocial peers (1=yes; 0=no).	0.35	0.35	0.34	
School major problems	Youth has experienced major problems at school, e.g. truancy, calls to police, failing most classes, dropped out, expelled or suspended (1=yes; 0=no).	0.62	0.63	0.62	
No remorse	Youth blames, denies or accepts antisocial behavior (1=yes; 0=no).	0.38	0.41	0.35	
Antisocial values	Youth exhibits antisocial values (1=yes; 0=no).	0.11	0.09	0.12	
Physical aggression	Youth believes that physical aggression is sometimes or often appropriate to resolve a disagreement or conflict (1=yes; 0=no).	0.45	0.44	0.46	
Reports violence	Any reports of violence or anger, such as displaying a weapon, fighting, threats, violent outbursts, violent temper, fire starting, animal cruelty, destructiveness, volatility and intense reactions (1=yes; 0=no).	0.68	0.71	0.65	‡
Number of cases		594	304	290	

‡ p<0.10 * p<0.05 ** p<0.01 ***p<0.001

Notes: a. Proportions are reported. To test whether there is a statistically significant association, a χ^2 statistic was calculated.

b. The median is reported.

Model Estimation and Technical Issues

To analyze these data, confirmatory factor analysis was used.⁹ This technique maximizes the correspondence between the observed variance/covariance or correlation matrix and the specific model. In particular, confirmatory factor analysis enables us to assess whether particular characteristics and assessments of youth and their backgrounds cluster together into meaningful dimensions or explanations. The hypothesized two and four-factor models (shown earlier in Figures 2a and 2b) were estimated using the weighted least squares (WLS) or asymptotic distribution free,¹⁰ estimation procedure in Jöreskog and Sörbom's (1996a) LISREL 8.3 program. The WLS estimator provides optimal estimates under conditions of non-normality. Essentially, weighted least squares weights the discrepancy matrix ($S - \Sigma(\theta)$) by a matrix that is partially a function of higher-order sample moments. In other words, the WLS weight matrix has additional elements to describe the non-normal sample distribution (West, Finch and Curran 1995). Browne (1984) showed that if the asymptotic covariance matrix (Σ_{ss}) is used as the weight matrix, the estimates will be asymptotically efficient within the group of WLS estimators.¹¹ The initial matrices for the WLS procedure were computed using in Jöreskog and Sörbom's (1996b) PRELIS 2.3 program.¹²

⁹ By using factor analysis, I am assuming that the underlying dimensions structuring the assessments and evaluations of probation officers are continuous. In contrast, research on the use of typifications within legal processing, at the very least, implies the development of distinct categories. However, as the classification involves "matching" characteristics and circumstances to preconceived diagnoses, this process can be seen as involving *degrees* of agreement, otherwise there would not be problematic cases.

¹⁰ It is also known as an arbitrary distribution estimator.

¹¹ Further details about the WLS estimator and the optimal weight matrix can be found in Bollen (1989, pp.425-432) and Jöreskog and Sörbom (1996a, pp.21-23).

¹² The calculation of the asymptotic covariance matrix (the weight matrix) required a minimum sample size of $k(k-1)/2$ where k is the number of variables (Jöreskog and Sörbom 1996b, p.173). For this analysis with 19 variables, the minimum sample size is 171; the young female sample is approximately 1.7 times larger, and the young male sample 1.8 times larger than this minimum. Thus, we can be reasonably confident in the stability of the estimated asymptotic covariance matrices.

The analysis was carried out in two parts. First, I estimated the two-factor and four-factor models of the following form:¹³

$$X_i = \Lambda_x \xi_i + \delta_x$$

where X_i is a vector of observed indicators (x_i) of ξ_i , a vector of latent factors; Λ_x is a matrix of the factor loadings on ξ_i ; δ_{xi} is a vector of measurement error; and Θ_δ is the covariances of δ_{xi} . The factors were allowed to covary. To identify the units of the latent factors, I constrained their variances to 1.0, but allowed their correlations to be unconstrained. Initially measurement error was assumed to be uncorrelated; later models allowed correlated error. Preliminary models were estimated on the young male sample, before conducting the multi-group analysis.¹⁴ Only the multi-group analyses are reported here.

The second part of the analysis tests the extent to which the preferred model was invariant across gender, by imposing a series of equality constraints. Based on the suggestions of Jöreskog and Sörbom (1996a) and Bollen (1989), there are three ways that we could think about the differential impact of gender on the factor structure:

$$(1) \quad H_{\Lambda_x}: \Lambda_x^{(1)} = \Lambda_x^{(2)} \quad (\text{for each } \xi)$$

$$(2) \quad H_{\Theta_\delta}: \Theta_\delta^{(1)} = \Theta_\delta^{(2)}$$

$$(3) \quad H_{\Phi_\xi}: \Phi_\xi^{(1)} = \Phi_\xi^{(2)}$$

The first test focuses on whether the same factor pattern exists in each group for each factor separately. It provides an assessment of whether there are statistically significant differences

¹³ These models assume indicators that are reflective, rather than causal.

¹⁴ The choice of the male sample was simply determined by its larger sample size.

in the factor loadings across the two groups.¹⁵ In other words, are different items important on each factor for males and females? The second test examines whether the error structure for the indicators is invariant across groups. As the estimation of this model uses a correlation matrix, this hypothesis is equivalent to constraining all the factor loadings to be equal across groups. Finally, the invariance of the correlation matrix of the latent factors is assessed. This test shows the extent to which the factors are similar or divergent across male and female cases.

Three features of the analysis require further discussion. First, as all but one of the measures are categorical, the covariance matrix is not technically appropriate, and thus, parameter estimates, standard errors and test statistics will be inconsistent and/or biased. The most serious consequence of including endogenous categorical variables is that it violates the covariance structure hypothesis, i.e., $\Sigma = \Sigma(\theta)$ (West et al. 1995; Bollen 1989). If we assume that x_i and y_i are categorical measures of underlying continuous variables x^* and y^* and that $\Sigma = \Sigma(\theta)$ holds for x^* and y^* , it is unlikely that Σ (the population covariance matrix of x_i and y_i) will equal Σ^* (the population covariance matrix of y^* and x^*), as generally x_i and y_i will be nonlinear functions of x^* and y^* .¹⁶ Indeed, if x_i and y_i were linear functions of their underlying continuous counterparts, conventional estimation procedures could be used. Thus, as x^* and y^* are assumed to be normally distributed, the solution is to estimate the correlations of the underlying continuous variables (i.e., a polychoric/tetrachoric correlation matrix), and

¹⁵ The more straight-forward test of different factor loadings across groups would be a series of equality constraints for each loading. However, due to sample size, there were problems in estimating each of these models.

¹⁶ See Bollen (1989, pp.433-439) and Jöreskog (2001) for a fuller discussion.

then estimate the factor models using weighted least squares.¹⁷ Simply analyzing a correlation matrix generally produces incorrect standard errors and other test statistics (Jöreskog and Sörbom 1996a, pp.35-6).

Second, polychoric and tetrachoric correlations are estimates of the correlation between two underlying continuous variables x^* and y^* , where x^* and y^* are assumed to have a bivariate normal distribution (Jöreskog and Sörbom 1996b; Bollen 1989; Muthén 1989). To estimate this correlation, we assume that when the latent continuous variable passes a certain threshold, x_i changes from one category to another. For instance, we can think of the latent continuous as a tendency to respond or report particular events, behaviors or attitudes. Behaviors amounting to abuse or neglect may only be recognized or responded to as abuse or neglect, once the tendency exceeds a specified threshold.¹⁸ The “latent” correlation is calculated through a maximum likelihood estimation procedure based on the distribution of cell frequencies in the contingency table (Jöreskog and Sörbom 1996b).¹⁹ The correlations were estimated separately for the young male and female samples. Overall, the polychoric/tetrachoric correlations are larger than the respective Pearson’s correlations. Thus, the Pearson’s correlation coefficients attenuate the bivariate association between the variables.

¹⁷ There is another possible solution: Muthén (1993) suggests that the underlying variables (x^* and y^*) can be directly estimated, without the intervening step of calculating polychoric correlations of the observed dichotomous variables. This option is not available in the version of LISREL used for this analysis.

¹⁸ The estimated correlation matrix used in this analysis consists of polychoric and tetrachoric correlations, to take into account the varying levels of measurement. Tetrachoric correlations are a special case of polychorics. Similar reasoning is used to estimate the means, standard deviations and covariances of the underlying latent variables. However, dichotomous indicators—the bulk of variables used in this analysis—provide insufficient information to estimate both the means and the standard deviations (Jöreskog 2001).

¹⁹ Further description of this issue can be found in Bollen (1989), Muthén (1989) and Mislevy (1986).

A key assumption of the estimation of polychoric and tetrachoric correlations is that the underlying continuous variables, x^* and y^* , are normally distributed. The standard χ^2 tests cannot be used in the case of pairs of dichotomous indicators, as the model is fully saturated and the degrees of freedom are zero (Jöreskog 2001). However, a crude assessment of the extent to which x^* and y^* may fit the assumed model of normality is provided by skewness and kurtosis statistics for the sum of the corresponding indicators (see Muthén 1989, p.36).²⁰ Overall, these statistics suggest that the normality assumption is tenable: the largest skewness statistic was just over 1.0, and the all kurtosis values were less than ± 1.3 .²¹ Moreover, the estimation procedure works best for dichotomous variables that are not highly skewed, or unbalanced, across the categories (e.g., proportions of 0.40/0.60). Although this is not a concern for most of the measures included in this analysis, three variables—namely, “victim of neglect”, “mental health problems”, and “antisocial values”—are particularly skewed (with about 10% of cases in one category). Although these measures were retained due to their theoretical significance, some care must be taken in the interpretation of their effects.

The third issue focuses on the robustness of the WLS estimator. Generally, the small or moderate sample size properties of the WLS estimator are unknown (Bollen 1989). As the performance of estimators depends on the specified model (i.e., the number of parameters)

²⁰ A triplet testing approach of tetrachorics has been proposed (Muthén 1993), but this is not available in the version of LISREL used for this analysis.

²¹

	<u>2-factor model</u>		<u>4-factor model</u>			
	(1)	(2)	(1)	(2)	(3)	(4)
Skewness	0.198	0.436	0.283	1.006	0.088	0.048
Kurtosis	-0.814	-0.659	-0.968	0.336	-1.160	-1.285
Mean	1.763	5.662	1.621	0.982	3.850	0.971
Median	2.000	6.000	2.000	1.000	4.000	1.000

and many Monte Carlo studies focus on the effects of non-normality of continuous variables, it is difficult to infer an appropriate sample size. However, one indicator that the models presented in this chapter are performing reasonably well is that, in general, the estimated standard errors (compared to the parameter estimates) are acceptably small. Additionally, more complicated models are considerably more problematic (Jöreskog 2001)—the estimated model in this analysis is reasonably simple.

Results

The odds ratios reported in Table 2 provide a crude assessment of the relationship of gender on the underlying elements hypothesized to structure probation officers' accounts. Odds ratios represent a measure of strength of association for dichotomous variables (note that male defendants are the reference category). Using a logit model, each assessment was separately regressed on gender to obtain an estimated odds ratio. The first column shows the "raw" odds ratios of the relationship between gender and probation officers' assessment; the second column presents the odds ratios *adjusted* for offenders' race and age at referral. Scores of 1 indicate no gender difference (i.e., equal odds), scores below 1 indicate that cases of young female offenders are less likely than males to be associated with the assessment of interest, and those above 1 indicate that female cases are more likely to have a particular assessment (controlling for race and age at referral).

Table 2: Relationship between Gender and Assessments
(Risk assessment data, 1999-2001, n=594)

<i>Variable</i>	<i>Odds Ratio^{a,b}</i>	<i>Adjusted Odds Ratio^{b,c}</i>
Victim of abuse	3.147 ^{***}	3.404 ^{***}
Victim of neglect	1.969 ^{**}	2.303 ^{**}
Drugs/alcohol	0.939	0.996
Mental health problems	1.654 [*]	1.740 [*]
Runaway	1.719 ^{**}	1.736 ^{**}
Family problems ^d	0.128 ^{**}	0.130 ^{**}
Mother-problems	1.158	1.171
Discipline problems	0.999	1.024
Negative peers	0.983	1.059
School major problems	0.996	1.013
No remorse	0.765	0.772
Antisocial values	1.454	1.512
Belief physical aggression	1.075	1.124
Reports of violence	0.739 [‡]	0.729 [‡]

‡ p<0.10 * p<0.05 ** p<0.01 *** p<0.001

- Notes: a. Using a logit model, each assessment was separately regressed on gender. Male is the referent category.
b. Two-tailed tests.
c. Adjusted for age at referral (in years) and race (measured as four dummy variables representing African-American, Native American, Hispanic and Asian). Male is the referent category.
d. As the family problems index is continuous, the correlation between family problems and gender is reported. The second column provides the partial correlation, controlling for age at referral and race.

There are three findings of interest. First, there were statistically significant differences between adolescent males and females in the assessment of their experiences of abuse, neglect, mental health problems and other family dysfunction. Compared to cases of male offenders, and after adjusting for youths' race and age at referral, the cases of young female offenders were 3.40 ($p<0.001$) times as likely to be assessed as victims of abuse, 2.30 ($p<0.01$) times as likely to be assessed as involving problems neglect, and 1.74 ($p<0.01$) times as likely to contain reports of running away or being kicked out of home. However, there were no statistically significant differences between young female and male cases in the recording of problems being experienced by the mother (or female guardian) living in the

household. Second, there were no significant differences between the assessments of female and male cases regarding their involvement with antisocial peers (1.06, n.s.) and difficulties at school (1.01, n.s.). Finally, there were minimal differences between the assessments of the attitudes and orientations of young male and female offenders. Although at times recorded more frequently in the young female cases (see Table 1), there were no statistically significant differences between male and female cases in the assessment of the exhibition of antisocial values (1.51, n.s.),²² lack of remorse or responsibility for their behavior (0.77, n.s.), and the belief in the use of physical aggression for the resolution of conflict (1.12, n.s.). There was some evidence that young males are seen as displaying more violent or aggressive behavior (0.73, $p < 0.10$). The same pattern of findings can also be seen in the descriptive statistics by gender presented in Table 1.

Thus, the major difference between cases involving young male and female offenders is the assessment or determination of their vulnerability. Probation officers were more likely to find adolescent females as being exposed to circumstances which might increase their vulnerability to victimization: an association that the “gendered pathways to crime” perspective (Chesney-Lind 2001; Daly 1994) would lead us to expect. The critical point for this study is that issues of vulnerability and victimization may be more important in the assessment and treatment of young female than young male offenders. Although these assessments may be warranted and appropriate, court officials, and others who are the source of information about youth, may be more likely to look for and recognize vulnerability in the

²² Despite the somewhat large odds ratio, this measure is highly skewed with about 11% of the total sample being assessed as exhibiting antisocial values.

histories and circumstances of young females than young males. Thus, evaluations of vulnerability *may* be more strongly embedded in our conceptions of adolescent females and their experiences.

Estimating Models of the Underlying Dimensions of “Problems”

The results of estimating the models in Figures 2a and 2b are reported in Tables 3 to 6. For each model, three different structures were estimated: *model 1* is estimated with uncorrelated error; *model 2* is estimated with correlated error only between the “family problems” and “mother-problems” items;²³ and *model 3* is estimated with further correlated errors.²⁴ In the top panel, Table 3 presents several measures of overall fit for the two and four-factor models.²⁵ The goodness-of-fit statistics consistently show that both models fit the data fairly well, with GFI and CFI indices well over 0.95, fairly large negative Bayesian Inference Criterion (BIC) values (ranging from -388.37 to -533.785), and acceptably low

²³ As “mother-problems” was calculated from “family problems”, it was reasonable to assume that these two items might be correlated beyond their relationship through the latent factor,

²⁴ The pattern of correlated errors was determined from an inspection of the modification indices in the preliminary models estimated on the male sample only.

²⁵ Tanaka (1993) recommends using multiple measures, rather than a single measure.

Table 3: Goodness-of-Fit Statistics for the Two and Four-Factor Models
(Risk assessment data 1999-2001, N=594)

<i>Model^a</i>	χ^2	<i>Scaled χ^2^b</i>	<i>d.f.</i>	<i>CFI</i>	<i>GFI_{females}</i>	<i>GFI_{males}</i>	<i>BIC^c</i>
2-factor, model 1	582.432 (p=0.0000)	382.736 (p=0.0000)	152	0.975	0.973	0.977	-388.374
2-factor, model 2	572.988 (p=0.0000)	378.738 (p=0.0000)	150	0.976	0.974	0.977	-385.044
2-factor, model 3	333.541 (p=0.0000)	216.863 (p=0.0000)	130	0.988	0.983	0.988	-496.753
4-factor, model 1	414.831 (p=0.0000)	213.947 (p=0.0000)	142	0.984	0.978	0.986	-492.106
4-factor, model 2	383.370 (p=0.0000)	207.384 (p=0.0002)	140	0.986	0.980	0.987	-510.793
4-factor, model 3	245.414 (p=0.0000)	165.194 (p=0.0056)	122	0.993	0.987	0.992	-533.785
				$\Delta\chi^2$	$\Delta d.f.$	<i>p</i>	ΔBIC^b
2-factor: model 1 vs. model 2				9.444	2	0.009	3.330
2 factor: model 2 vs. model 3				239.447	20	0.000	-111.709
4-factor: model 1 vs. model 2				31.461	2	0.000	-18.687
4-factor: model 2 vs. model 3				137.956	18	0.000	-22.992
2-factor (model 1) vs. 4-factor (model 1)				d	—	—	-103.732
2-factor (model 2) vs. 4-factor (model 2)				d	—	—	-125.749
2-factor (model 3) vs. 4-factor (model 3)				d	—	—	-37.032

- Notes:
- Model 1: factor model with error
Model 2: factor model with correlated error between “family problems” and “mother-problem” items only.
Model 3: factor model with correlated errors determined from modification indices from initial estimations on the boys only sample.
 - Satorra-Bentler Scaled χ^2 . This may be a better measure of fit in smaller samples (Jöreskog 2001).
 - The BIC statistics was calculated as $\chi^2 - d.f. \cdot (\ln)N$. Changes in BIC greater than -10 indicate a substantial improvement in fit (Raftery 1993).
 - As these are non-nested models, this test statistic was not calculated.

levels of overall model error (RMSEA=0.06).²⁶ Although some residuals are somewhat larger than we might like, visual inspection shows that the residuals follow a somewhat normal distribution for both models, especially for models 2 to 3.²⁷

The bottom panel of Table 3 provides the results of tests of improvement of model fit. The two and four-factor models are non-nested models, so the comparison of their fit relies on changes in the BIC statistic as well as an inspection of the residuals. Overall, these results support a model of *specific* factors, rather than a model of *broad general* factors. More specifically, the four-factor model (with correlated error) fits the observed data better than the two-factor model. Examination of the residuals supports this conclusion: in the four-factor models, the standardized residuals more closely fit a normal distribution than in the two-factor models. However, the changes in the goodness-of-fit statistics reveal two intriguing points. First, the addition of the single correlated error term did not significantly improve the fit of the two-factor model; indeed, the difference in BIC statistic indicates that the model with the addition of this parameter does not fit as well given that more information is being used (for model 1 vs. model 2: $\Delta\chi^2=9.44$, d.f.=2; $\Delta\text{BIC}=3.33$). Second, there was a substantial improvement in fit for the two-factor model with the addition of ten correlated errors for each model (for model 2 vs. model 3: $\Delta\chi^2=239.45$, d.f.=20; $\Delta\text{BIC}=-111.71$). There was not a similarly large improvement for the four-factor model. In comparison, the addition of correlated error made moderate improvement in the fit of the four-factor model (for model

²⁶ The 90% confidence intervals for this statistic are 0.0498 to 0.70. RMSEA values of less than 0.05 indicate a close fit, while values from 0.05 to 0.08 indicate a reasonable fit (Browne and Cudeck 1992).

²⁷ More noise in the data might be anticipated as this analysis uses estimated correlation and covariance matrices. In addition, the fit of the residuals to a normal curve is better in the male sample, than in the female sample (where there is evidence that the variance of the estimated errors are mildly heteroscedastic). This may reflect greater non-independence in the female sample.

2 vs. model 3: $\Delta\text{BIC}=-22.99$). The pattern of findings regarding correlated error in the two-factor model suggests the existence of at least another latent factor.

Thus, these results imply that probation officers' working theories of youth offending—their typifications of youth and their problems—contains elements of controllability or culpability. Prior research provided evidence that probation officers' explanations fell along internal and external dimensions (Bridges and Steen 1998). This analysis suggests that the these dimensions intersect with elements of culpability.

Evaluating Gender-Specific Effects

Before turning to particular findings, the question of whether different structures underlie the assessments of young male and female offenders needs to be considered. If we reject that supposition, a universal model, rather than the gender-specific model presented here, would be more appropriate.

The results of tests for invariance across adolescent males and females are presented in Table 4. Chi-square statistics for the four-factor model with and without constraints were compared. The model without constraints is the four-factor model with correlated error, allowing parameters to vary across gender. As shown in the table, five different conditions were tested, in which various parameters were constrained to be identical across gender. If the model without constraints has a significantly reduced χ^2 value compared to the model with constraints, then we can conclude that the unconstrained model (i.e. the model allowing the estimates to vary across gender) provides a more adequate fit to the observed data. In

other words, a significant $\Delta\chi^2$ value indicates that the “freeing” or “unconstraining” the model improves the fit of the model.

Table 4: Goodness-of-Fit Tests for Invariance Hypotheses,^a
Four-Factor Model with Correlated Error
(Risk assessment data 1999-2001, N=594)

	$\Delta\chi^2$	$\Delta d.f.$	p
Equal factor loadings (H_A):			
Negative Attitudes (Λ_1)	14.356	2	<0.001
Vulnerability (Λ_2)	46.276	2	<0.001
Familial Control (Λ_3)	7.376	2	<0.05
Poor Conventional Associations (Λ_4)	2.166	2	n.s.
Equal error variances (Θ_δ) ^b	70.196	24	<0.001
Equal factor covariances (Φ_ξ)	44.38	6	<0.001

Note: a. The unconstrained model is the baseline model (i.e., four-factor model with correlated error): $\chi^2 = 245.414$, d.f.=122. If the model without the constraint (i.e. baseline model) has a significantly reduced χ^2 value compared to the model with the constraint, we fail to support the hypothesis of invariance, and accept the unconstrained model.

b. As the model involves standardized relations (and $1-r^2=\text{error}$), the hypothesis constraining all error variances to be equal across groups is the equivalent to constraining all λ paths to be equal across groups. The earlier hypotheses of equal factor loadings constrained the λ paths to be equal across groups only for each factor separately.

The results of these tests indicate that except for one condition, the unconstrained (or freed) model fits the data better than the constrained models. In other words, there is support for different structures underlying the assessments of young males and females. The test for equality of error variances was not supported: the unconstrained (or freed) model represented a significant improvement in the fit of the model ($\Delta\chi^2=70.20$, d.f.=2, $p\leq 0.001$). Of particular interest, the $\Delta\chi^2$ values show that, for *negative attitudes*, *vulnerability*, and *familial control* constraining the factor loadings to be equal across gender does not significantly improve the fit of the model. This result suggests that, *at least one* of the factor loadings in each factor is

significantly different across gender. (Individual equality constraints for each factor loading could not be estimated, due primarily to the sample size demands of the ADF estimator.) However, this is not the conclusion to be drawn from the results of the test of invariance across males and females for the *poor conventional associations* factor ($\Delta\chi^2=2.166$, d.f.=2; n.s.). In this case, the constraint of equality across groups produces a better fit. In summary, the model in general works differently across groups. For all but the *poor conventional associations* factor, there are some gender differences in the factor loadings.

The hypothesis of different underlying structures is also supported by the final test reported in Table 4. The test for equality of correlations between the latent factors was not supported ($\Delta\chi^2=44.38$, d.f.=6, $p\leq 0.001$), indicating that the correlations between the latent factors are not similar across male and female samples. Table 5 shows the estimated correlations between the latent factors for both groups. The estimates are provided in a common metric across groups (Raykov and Marcoulides 2000).²⁸ Overall, these results indicate that the underlying dimensions more tightly correspond in the adolescent female sample, than the male sample. These estimates suggest that although some factors appear to be unidimensional, this differs by gender. (For females, the estimated correlation between familial control and vulnerability is close to 1.0; for males, the estimated correlation between non-familial control and negative attitudes is about 1.0.)

²⁸ Fitting the model to a correlation matrix with latent variances fixed to unity yields what Raykov and Marcoulides (2000) call a uniform standardized metric which can be used to compare strengths of parameters in multi-group models.

**Table 5: Estimated Correlation Matrices,
Four-Factor Model with Correlated Error**
(Risk assessment data 1999-2001, N=594)

	<i>Negative attitudes</i>	<i>Vulnerability</i>	<i>Familial Control</i>	<i>Poor Conventional Associations</i>
<i>Negative attitudes</i>	—	0.793* (0.052)	0.875* (0.068)	0.784* (0.075)
<i>Vulnerability</i>	0.580* (0.058)	—	0.956* (0.081)	0.883* (0.095)
<i>Poor familial control</i>	0.694* (0.059)	0.750* (0.068)	—	0.736* (0.106)
<i>Poor conventional associations</i>	1.039* (0.095)	0.515* (0.093)	0.740* (0.093)	—

* $p < 0.05$

Notes: a. The top half (or shaded portion) of the table reports the estimates for the female sample; the bottom half of the table reports the estimates for the male sample.
b. Standard errors are reported in parentheses.
c. As this is an estimated parameter, out-of-range values are possible. However, the lower 90% confidence limit is less than 1.0.

At least in this sample, for males, there is minimal distinction between negative attitude cluster and poor conventional associations dimensions. This clustering of dimensions suggests a conception of masculinity as “trouble-makers”: young males with bad attitudes who misbehave at school and hang around with the wrong people. In contrast, lack of familial control and vulnerability may not be distinguishable for young females. Issues of victimization and vulnerability of adolescent females appear to be strongly tied to the family as a site of control and protection. Thus, the notions of vulnerability and familial control are not distinguishable for females, while these dimensions remain distinct for males. Likewise, for males, negative attitudes and poor conventional associations are indistinguishable, yet remain distinct dimensions for females. (All factors were retained for later analyses so that common indices could be constructed for both groups.)

Gender Differences in Classification of Juvenile Offenders

Table 6 provides the estimates in a uniform standardized metric of the preferred four-factor model for adolescent males and females. (As they are not of substantive interest, the estimated error parameters are not reported.) To facilitate comparisons of the strengths of standardized parameters, the estimates are provided in a uniform standardized metric (Raykov and Marcoulides 2000; see footnote 31). The parameter estimates are statistically significant, and with few exceptions, load reasonably highly (in this metric) on the hypothesized latent factors (with λ 's over 0.60).²⁹ In addition, the directions of the effects are consistent with our interpretations of the latent factors.

Overall, the results support the argument that probation officers' assessments cluster together into recognizable dimensions of explanations of youths' behaviors. The most important finding is that the loadings for particular characteristics classifying youth into particular dimensions vary systematically by gender. (As equality constraints across individual parameters could not be estimated, 90% confidence intervals have been calculated to help assess whether a difference is meaningful.) In particular, an evaluation that a youth failed to be remorseful is a stronger indicator of *negative attitudes* for young women, than more likely to "flag" a young female as problematic, compared to a young male. A similar for young men (0.90 vs. 0.67). Also, being assessed as having antisocial values has a stronger loading for females than males (0.97 vs. 0.84, with 0.03 overlap in 90% confidence

²⁹ The exceptions are the estimated loadings for "drugs/alcohol use" on "high vulnerability" for boys ($\lambda=0.36$, $p<0.05$), and "school problems" on "low non-familial controls" for girls ($\lambda=0.48$, $p<0.05$).

Table 6: Uniform Metric Estimates for the Four-Factor Model of Probation Officer Assessments, Young Males and Young Females^a
(Risk assessment data 1999-2001, N=594)

	<u>Males</u>				<u>Females</u>			
	<i>High Negative Attitudes</i> λ^b	<i>High Vulnerability</i> λ^b	<i>Low Familial Control</i> λ^b	<i>Poor Conventional Associations</i> λ^b	<i>High Negative Attitudes</i> λ^b	<i>High Vulnerability</i> λ^b	<i>Low Familial Control</i> λ^b	<i>Poor Conventional Associations</i> λ^b
No remorse	0.665* (0.587, 0.742)				0.904* (0.828, 0.980)			
Physical aggression	0.870* (0.817, 0.923)				0.888* (0.839, 0.937)			
Antisocial values	0.841* (0.755, 0.927)				0.971* (0.894, 1.048)			
Reports violence	0.782* (0.704, 0.859)				0.744* (0.677, 0.811)			
Victim of abuse		0.913* (0.837, 0.989)				0.777* (0.716, 0.838)		
Victim of neglect		0.813* (0.729, 0.897)				0.943* (0.874, 1.012)		
Drugs/ alcohol		0.362* (0.250, 0.474)				0.660* (0.565, 0.755)		
Mental health		0.704* (0.595, 0.813)				0.678* (0.581, 0.775)		
Discipline problems			0.856* (0.747, 0.965)				0.620* (0.533, 0.707)	
Family problems			0.829* (0.725, 0.933)				0.664* (0.582, 0.746)	
Runaway/kicked out			0.720* (0.615, 0.825)				0.648* (0.556, 0.740)	
Mother-problems			0.660* (0.570, 0.750)				0.709* (0.615, 0.803)	
Negative peers				0.686* (0.584, 0.788)				0.966* (0.831, 1.101)
School problems				0.607* (0.510, 0.704)				0.477* (0.398, 0.556)
Group GFI		0.992				0.987		
Number of cases		304				290		
Global χ^2 (d.f.)					245.414 (122)			
Scaled χ^2 (d.f.)					165.194 (122)			
Global CFI					0.993			
Global RMSEA (90% C.I.)					0.059 (0.048; 0.070)			
Global BIC ^c					-533.785			

* p<0.05

Notes: a. Model estimates adjusted for correlated error. The errors of all possible pairs of the following items were correlated: family problems, mother-problems, discipline problems, runaway, neglect, and negative peers.
b. Reported estimates are in a uniform standardized metric (Raykov and Marcoulides 2000). The 90% confidence intervals are reported in parentheses.
c. The BIC statistics was calculated as $\chi^2 - d.f. * (\ln)N$. Changes in BIC greater than -10 indicate a substantial improvement in fit (Raftery 1993).

interval). Together, these findings suggest that a failure to show conventional attitudes is process appears to be operating in the classification of adolescent males as vulnerable. Compared to young females, being seen as a victim (or suspected victim) of abuse loads higher on the *vulnerability* factor for young males (0.78 vs. 0.91). In other words, a perception of abuse flags problems more strongly for young men. Interestingly, assessments of the impact of drug and alcohol use are better indicators of *vulnerability* in the cases of female offenders, than male offenders (0.66 vs. 0.36).

Unexpectedly, given the focus of research on gender in the processing of juvenile offenders, disciplinary problems and a problematic home environment are stronger indicators of *low familial control* for male offenders than female offenders (discipline: 0.86 vs. 0.62; family problems index: 0.83 vs. 0.66, with 0.02 overlap in 90% confidence interval). However, this suggests two possible attitudes on the part of probation officers. As suggested by Wordes and Bynum's (1995) study, this might reflect probation officers' concern with a lack of male role models, but also a belief that single mothers may be unable to control their sons' behaviors. Finally, contrary to expectations based on theoretical explanations about juveniles and legal processing, an assessment that mothers have problems that impinge on their ability to monitor and supervise was *not* a stronger indicator for the *low familial control* factor in cases of female offenders, compared to male offender cases (0.71 vs. 0.66, with 0.136 overlap in the 90% confidence interval).

To further explore gender differences in the latent dimensions, means of the unweighted additive indices were compared across gender and gender/race groups (see Table 7).³⁰ Young women were assessed, on average, with higher levels of vulnerability and more problematic family environments. The differences between the mean scores of young males and females were statistically significant for vulnerability ($\text{mean}_{(\text{male})}=0.806$ compared to $\text{mean}_{(\text{female})}=1.166$) and familial control ($\text{mean}_{(\text{male})}=3.549$ vs. $\text{mean}_{(\text{female})}=4.166$). However, young males were not more likely, on average, to be assessed with higher negative attitudes ($\text{mean}_{(\text{male})}=1.658$ compared to $\text{mean}_{(\text{female})}=1.583$).

**Table 7: Mean Differences on Unweighted Factor Indices,
Four-Factor Model with Correlated Error^a**

(Risk assessment data 1999-2001, N=594)

	<i>Negative Attitudes^b</i>	<i>Vulnerability^b</i>	<i>Familial Control^b</i>	<i>Conventional Associations^b</i>	<i>N_(females)</i>	<i>N_(males)</i>
Male vs Female	0.075	-0.360***	-0.616**	0.005	290	304
White Male vs White Female	0.162	-0.225	-0.428	-0.122	104	87
African-American Male vs African-American Female	0.188	-0.300 [‡]	-0.601	-0.021	94	86
Hispanic Male vs. Hispanic Female	-0.381	-1.500***	-0.619	0.357*	21	42
Native American Male vs Native American Female	0.223	-0.269	-1.300 [‡]	-0.174	26	42
Asian-American Male vs Asian-American Female	-0.277	-0.326*	-0.694	0.109	45	47

[‡] p<0.10 * p<0.05 ** p<0.01 *** p<0.001

Notes: a. Table reports mean differences of unweighted index for each comparison pair. Negative differences shows that the female sample had a higher mean than the male sample.
b. F-statistic was calculated to test the difference in means.

There were also some interesting patterns among male and females youth of differing racial and ethnic backgrounds. Among white youth, there were no statistically significant

³⁰ As a polychoric correlation matrix is used, a mean structure model cannot be estimated. Additionally, due to the sample size demands of estimating polychoric correlations and using WLS methods, multi-group confirmatory factor models for each gender/race/ethnicity combination were not possible. (See footnote 12 for minimum sample considerations.)

differences in their mean scores for any of the underlying dimensions. This suggests that probation officers may find few differences in the social histories of white youth, regardless of gender. However, for nonwhite youth, there were several male-female differences. For vulnerability, there were significant differences in assessments for African-American, Hispanic and Asian-American youth, with female offenders having higher average scores. Gender differences in average scores for lack of familial control were only found for Native American ($\text{mean}_{(\text{male})}=3.738$ minus $\text{mean}_{(\text{female})}=5.039$ was marginally significant). In contrast, only Hispanic youth had a statistically significant difference between males and females for poor conventional associations ($\text{mean}_{(\text{male})}=1.119$ vs. $\text{mean}_{(\text{female})}=0.762$).

Thus, there are some gender differences for minority youth, but not for white youth. The most consistent difference was the average levels of vulnerability between minority males and females. In comparison to minority females, the social histories of minority males appear to be less likely to be constructed in terms of—or at least contain recognised evidence of—the blurred boundaries between victimization and offending. Minority males-as-victims may be particularly problematic for probation officers' conceptions of marginalised masculinity (see Daly 1994 for a similar argument about male defendants more generally).

Summary and Conclusions

The concern of probation officers, in making recommendations and decisions about youth, is not simply describing or establishing the circumstances of the alleged offense; rather, it is the identification of “what is the trouble” (Emerson 1969). The process of

evaluating youth, therefore, involves determining the cause of their behavior. These typifications, or working theories, of youth offending draw on youth biographies; they are constructions using characteristics and assessments about youths' social backgrounds to explain the nature of their offending behavior. In this way, these typifications reflect a complex mix of "real" problems and experiences, as well as how these experiences are obtained and assessed within the interactional encounters between probation officers, youth, and their families.

Based on work drawing on social psychological theories of information processing (e.g., Bridges and Steen 1998; Carroll and Payne 1977), as well as recent research on gender and offending (e.g., Chesney-Lind 2001; Belknap 1996; Daly 1994), I speculated that the explanations constructed by probation officers would vary on two axes: internal/external, and controllable/uncontrollable causes for the behavior. The internal/external dimensions relate to the location of the cause: are youth typified as having attitudinal or emotional problems, or environmental or situational problems? In contrast, the controllable/uncontrollable dimensions—arguably similar to the legal concept of culpability—focus on whether the problem was within the control of the youth.

The analyses found that the observed data supported four underlying dimensions of explanations for youth offending: negative attitudes (internal, controllable); vulnerability (internal/external, uncontrollable); familial control (external, uncontrollable); and conventional associations (external, controllable). The "negative attitudes" dimension typified youth as lacking respect for conventional values and failing to show remorse for their

actions. The “vulnerability” typification reflected offending as a product of victimization and other past problems, rather than as a conscious action on the part of the youth. The “low familial control” category represented offending as a result of the inability of families to provide stability and appropriate supervision for the youth, while “poor conventional associations” indicated offending occurred due poor choices made by youth about peers and study.

Importantly, at least for the non-committable offenses studied, there are gender differences in this underlying structure of probation officers’ assessments of young offenders. The assessments and characteristics that cluster into particular dimensions appear to vary by gender. Further, young females were more likely to be rated with problems associated with their vulnerability and family environments, than were young males. The link between vulnerability and offending as an explanation for behaviour and motivations is more often made for young women than for young men, probably because the locating of males as victims undercuts traditional conceptions of masculinity (Daly 1994). Scholarship on gender, crime and courts would lead us to expect that adolescent females may be more strongly identified with problems arising from past victimization and abilities of families to control their behavior.

In particular, the results indicate that notions of vulnerability and familial control are not empirically distinguishable for young females, although they are for males. Similarly, dimensions of negative attitudes and poor conventional associations are not empirically separable for males, but are distinguishable for females. These findings suggest that the

security and protection of young females is potentially synonymous with stable familial environments; while for young males, indicators and assessments of conventionality of attitudes, values and associations cannot be separated.

Although the analysis of the intersection of race or ethnicity and gender was limited, the findings of this study indicate that there are gender differences *within* racial or ethnic groups. Specifically, with the exception of Native American youth, minority females had higher levels of vulnerability than their male counterparts. Although speculative, this suggests that officials' conceptions of masculinity—especially for minority males—may overlook youths' victimization experiences as explanations for male offending (Daly 1994, p.260).

Obviously, a key issue raised by this analysis is whether these characterizations and assessments are warranted or legitimate. Perhaps female youth *are* more likely to be abused and victimized than others—a reasonable expectation given what we know about lived experiences of men and women. The construction of biographical elements by court officials may reflect accurate evaluations of the realities of young women's lives. However, it may also be a result of court officials recognizing, and searching for, these problems in the histories of particular offenders. For instance, probation officers may be more attentive to signs of abuse and other forms of victimization in the cases of female youth, than among their male clients. Thus, the stories used by probation officers may be warranted or may be unwarranted; in either case, they inform their understanding of youths' behavior and their resulting recommendations. Officials' typifications should be expected to reflect, as well as

interpret, the actual experiences of the offenders, problems and cases routinely encountered and processed.

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